

Remarks/Arguments

The specification has been amended to add headings as suggested by the Examiner.

Claims 1-10 are pending in the application. Claims 1-10 are rejected. Claim 7 is cancelled. The Examiner has rejected claims 1-10 under 35 U.S.C. 102(b) as being unpatentable in view of Imajo et al.

This invention is directed to a device for driving a display and to a method of testing driver circuits. Image information in active matrix displays is typically stored as digital signals in memory. Such digital signals must be converted into analog signals so that a corresponding light intensity can be displayed by way of an analog voltage. Driver circuits typically must drive several hundred terminals of a display device. Therefore, the testing of every individual analog voltage value is very time consuming. This invention provides a driver circuit that can be tested within a short period of time and with very extensive fault coverage. The driver circuit of this invention includes leads that are supplied with one or more voltages by a voltage generator. The leads are connected to output stages that are preferably provided with a corresponding multiplex device. The multiplex devices select one of the voltages supplied to the leads and the selected voltage is conducted through an amplifier to output. A first switching device (separate from the multiplex device) is provided between the voltage generator and the output stages to separate the leads from the voltage generator to allow interruption of the voltage supply to the leads. The first switching device is capable of interrupting the leads separately and is capable of interconnecting the leads enabling a voltage to be applied to all leads. A second switching device is provided to switch the potential that is applied to the output stage to test a reference potential.

Imajo et al does not disclose a driver circuit or a method of testing a driver circuit as claimed. Specifically, Imajo et al is directed to a low power driving method for reducing the non-display area of a TFT-LCD. The Examiner refers to Figure 11 of Imajo et al as disclosing the

Page 5 - RESPONSE TO OFFICE ACTION DATED MARCH 18, 2004
Serial No. 10/042,444

claimed features of the invention. However, Figure 11 shows a circuit configuration for a power unit 102 (Fig. 1) in which grey-scale reference voltages V0-V8 are connected to a multiplexer 209. The Examiner states that multiplexer 209 acts as a switch that enables interruption of a voltage supply to any of the leads. The Examiner further states that multiplexer 209 acts as a second switch to switch one of the leads to a selectable potential.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Imajo et al does not disclose a first switch that interrupts the voltage to the leads from a voltage generator. (See specification, p. 6, line 19.) Multiplexer 209 of Imajo et al outputs the grey-scale reference voltages by switching the output from two voltage dividing circuits in response to the high and low level of the AC signal (see column 18, lines 5-8). Therefore, multiplexer 209 of Imajo et al is a "switch" only in the sense that it switches the output from two voltage circuits as discussed above. Imajo et al does not disclose a first switch that interrupts the voltage to the leads from a voltage generator. Furthermore, Imajo et al does not disclose a second switch to switch to different test reference potentials.

Imajo et al is further lacking in any disclosure or discussion of a method of testing a driver circuit as recited in claim 10. The Examiner has not addressed the method recited in claim 10 and Applicant concludes that the Examiner agrees that Imajo et al does not disclose

such a method. If the Examiner believes that Imajo et al discloses such a method Applicant

requests that he specifically point out where in Imajo et al such disclosure exists.

In view of the foregoing reasons for distinguishing over the cited references, Applicant has not raised other possible grounds for traversing the rejections, and therefore nothing herein should be deemed as acquiescence in any rejection or waiver of arguments not expressed herein.

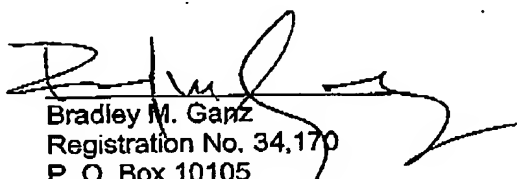
Page 6 - RESPONSE TO OFFICE ACTION DATED MARCH 18, 2004
Serial No. 10/042,444

CONCLUSION

Applicant submits that in view of the foregoing amendments, the application is in condition for allowance, and favorable action is respectfully requested. The Commissioner is hereby authorized to charge any fees, including extension fees, which may be required, or credit any overpayments, to Deposit Account No. 50-1001.

Respectfully submitted,

Date: June 18, 2004



Bradley M. Ganz
Registration No. 34,170
P. O. Box 10105
Portland, Oregon 97296
Telephone: (503) 224-2713
Facsimile: (503) 296-2172
email: mail@ganzlaw.com

Correspondence to:

Philips Intellectual Property & Standards
1109 McKay Drive; Mail Stop SJ41
San Jose, CA 95131 USA
Telephone: (408) 474-9065
Facsimile: (408) 474-9082
USPTO Customer Number: 24738